UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,123	10/10/2000	Alex M. Gernert	SYM-0606C	7157

28661 7590 03/07/2003

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EXAMINER
NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _09 January 2003_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
      closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _27-29 and 35-51_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _27-29 and 35-51_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _7_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 7 January 2003 have been fully considered but they are not

persuasive.

2.   Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly

point out the patentable novelty which he or she thinks the claims present in view of the state of

the art disclosed by the references cited or the objections made.

        Due to Applicant's noncompliant arguments in terms of what the Applicant thinks is

novel, the Examiner will use the Applicant's specification to address the arguments.

3.   In response to applicant's argument that "Support" does not disclose determining a

particular time at which the mobile computer terminal is to send a message to the host computer;

programming a timer or clock to wake up the mobile computer terminal so that the mobile

computer terminal can send the message at said particular time; entering the mobile computer

into a sleep mode; waking up the mobile computer terminal due to the programming of the timer

or clock; and sending the message at said particular time as claimed in claims 27 and 37, a

recitation of the intended use of the claimed invention must result in a structural difference

between the claimed invention and the prior art in order to patentably distinguish the claimed

invention from the prior art. If the prior art structure is capable of performing the intended use,

then it meets the claim. In a claim drawn to a process of making, the intended use must result in

a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA

1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

        In this case, "Support" does meet the claim. The Applicant states:

"…it should be recognized that the mobile computer terminal may not be able to communicate with an access point simply because it is in a "sleep" mode. It is common for mobile computer terminals to have power conservation systems in order to save battery power. It is therefore typical for a mobile computer terminal to go into a "sleep" mode, where all its processing functions are shut down, when the mobile computer terminal is not used for a certain period of time." [page 18, lines 3-8 of Applicant's disclosure] [underline emphasis added]

The Examiner interprets from this statement that the Applicant's purpose for using a "sleep" mode is to save battery power. "IP Mobility" specifically discloses:

"Moreover, mobile nodes are likely to be battery powered, and minimizing power consumption is important. Therefore, the number of administrative messages sent over the link by which a mobile node is directly attached to the Internet should be minimized…" [page 4, "1.2 Goals"]

It is clear that the intent of "Support" is to reduce the power consumption of mobile nodes by reducing the messages sent over a link and therefore meets the limitations "entering the mobile computer into a sleep mode."

Further, Applicant discloses:

"The problem arises when the mobile computer terminal is in "sleep mode" when the [specified] time…arrives. This problem may be remedied by utilizing a timer or clock in the mobile computer terminal. The computer terminal may program the timer or clock before it goes to "sleep" to wake it up at a specified time in order that it may send the…message. The timer or clock utilizes very little power…" [page 18, line 25-page 19, line 3]

The Examiner interprets from this statement that the timer or clock used in the invention

of the Applicant to alert the mobile node so it may be able to send a message before the specified

time.

"Support" specifically discloses:

"Lifetime: The number of seconds remaining before the registration is considered

expired." [page 28, "Lifetime"] [underline emphasis added]

"For each pending registration, the mobile node maintains the following

information...the remaining Lifetime of the pending registration." [page 35] [underline emphasis

added]

"There are other conditions under which the mobile node SHOULD (re)register...such

as...when the current registration's Lifetime is near expiration." [page 35] [underline emphasis

added]

"If the mobile node has registered on a foreign network, it SHOULD re-register before

the xpiration of the Lifetime of its registration...Since the Registration Request is certainly sent

before [a] home agent begins timing the registration Lifetime...this procedure ensures that the

mobile node will re-register before the home agent expires and deletes the registration..." [page

41]

It is clear from the disclosures of "Support" here and above that the "Lifetime" is a timer

maintained by the mobile node that notifies the mobile node that a specified time is approaching

to send a message to a host computer and, therefore, meets the limitations "determining a

particular time at which the mobile computer terminal is to send a message to the host computer;

programming a timer or clock to wake up the mobile computer terminal so that the mobile

computer terminal can send the message at said particular time and waking up the mobile

computer terminal due to the programming of the timer or clock; and sending the message at said

particular time."

4.   In regards to Applicant's argument that "Support" does not obviously show displaying a

message indicating to the user that the mobile computer must be brought back into range of

communications with the host computer or else the leased IP address may be forfeited as claimed

in claims 29 and 39, the Examiner does not agree.

As recited in the previous Office Action, "Support" specifically discloses:

"...any mobile node already registered with [a foreign agent] will know that they have

not moved out of range..." [page 17] [underline emphasis added]

Support also discloses, as described above, that the mobile node keeps track of a timer

("Lifetime") that alerts the mobile node of the specified time when the mobile node must send a

message before the mobile node's registration expires.

Also, within the disclosures within "Support" regarding claims 28 and 38, which are

parent claims of claims 29 and 39 respectively, "Support" discloses:

"When a mobile node detects that it has moved to a foreign network, it obtains a care-of

address on the foreign network. The care-of address can determined...by some external

assignment mechanism such as DHCP..." [page 8] [underline emphasis added]

Clearly, the disclosures of "Support" show that the mobile node knows when they within

range of communication with the host computer. "Support" also shows that the "Lifetime" timer

maintained on the mobile node alerts the user of the mobile node when the node must send a

message. Therefore, it would have been obvious to one of ordinary skill in the art to have the

mobile node alert the user through the use of a message that, if they are out of range of the host

computer, to get back within range or they will lose their leased IP address.

Regarding claims 42-51, a new rejection on these newly added claims follows.

Specification

5.   The disclosure is objected to because of the following informalities:

Replace all instances of "kernal" with "kernel" within the text, an example of which is on

page 9, line 19 and shown as items 36 and 46 in Figure 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 27-28, 35, 37-38, and 40 rejected under 35 U.S.C. 102(b) as being anticipated by

"RFC 2002: IP Mobility Support" by Perkins (hereinafter "Support").

Regarding claim 27, "Support" discloses a method for communication between a mobile

computer terminal and a host computer in a system [page 5, "1.5 New Architectural Entities"] in

which it is necessary in order to avoid being disconnected for the mobile computer terminal to

send a message to the host computer, including the steps of:

determining a particular time at which the mobile computer terminal is to send the

message to the host computer; programming a timer or clock to wake up the mobile computer

terminal so that the mobile computer terminal can send the message at said particular time;

entering the mobile computer into a sleep mode; waking up the mobile computer terminal due to the programming of the timer or clock; and sending the message at said particular time. [page 4, "1.2 Goals"; pages 26-28, "3.3 Registration Request, specifically "Lifetime"; pages 34-36, "3.6 Mobile Node Considerations", specifically page 35, paragraph 3 beginning "There are other conditions..."; page 41-42, "3.6.2.2 Registration Request", specifically paragraph beginning "If the mobile node has registered on a foreign..."]

Regarding claim 28, "Support" discloses the method of claim 27, wherein said system is a system utilizing the limited leasing of IP addresses and said message is a message begging for more time. [page 8, "1.7 Protocol Overview", specifically paragraph beginning "When a mobile node detects it has moved to a foreign network..."; page 41-42, "3.6.2.2 Registration Request", specifically paragraph beginning "If the mobile node has registered on a foreign..."]

Regarding claim 35, "Support" discloses the method of claim 27, wherein said message is a lease renewal message. [page 8, "1.7 Protocol Overview", specifically paragraph beginning "When a mobile node detects it has moved to a foreign network..."; page 41-42, "3.6.2.2 Registration Request", specifically paragraph beginning "If the mobile node has registered on a foreign..."]

Claim 37 is rejected under 35 USC 102(b) since claim 37 contains the same limitations as recited in claim 27.

Claim 38 is rejected under 35 USC 102(b) since claim 38 contains the same limitations as recited in claim 28.

Claim 40 is rejected under 35 USC 102(b) since claim 40 contains the same limitations as recited in claim 35.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

5.   Claims 29, 36, 39, and 41 rejected under 35 U.S.C. 103(a) as being unpatentable over

"Support".

        Regarding claim 29, "Support" discloses the method of claim 28, further including

determining if the mobile computer is out of range of communications with the host computer.

[page 10, paragraph 5 beginning "If a mobile node is using a co-located…"; page 17-18,

paragraph beginning "A home agent MUST always be…"]

        "Support" does not expressly disclose displaying a message indicating the mobile

computer should be in brought back in range of the host otherwise the leased IP address may be

lost, however, "Support" does disclose wherein a timer is kept at the mobile computer in order to

keep track of the time until the IP lease expires [pages 34-36, "3.6 Mobile Node Considerations",

specifically page 35, paragraph 1 beginning "For each pending registration..." and the indentations following paragraph 1 and paragraph 3 beginning "There are other conditions..."]

It would have been obvious to one skilled in the art at the time the invention was made to use the method as described in "Support" regarding claim 28 with the displayed message about the expiration of the IP lease. Since "Support" discloses a timer is kept on the mobile computer for keeping track of the IP lease as described above and the mobile computer is aware of being out of range of the host as described above, it would have been obvious to provide a message alerting a user that the IP lease would expire so the user could avoid the problem of losing the IP lease by moving the mobile computer within range of the host. Therefore, it would have been obvious to achieve the limitations as described in claim 29.

Regarding claim 36, "Support" discloses the method of claim 29, further including the step of:

resetting said timer or clock for a next scheduled beg time if the mobile computer is out of range of communications with the host computer. [page 42-43, "3.6.3 Registration Retransmission"]

Claim 39 is rejected under 35 USC 103(a) since claim 39 contains the same limitations recited in claim 29.

Claim 41 is rejected under 35 USC 103(a) since claim 41 contains the same limitations recited in claim 36.

6.   Claims 42-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art [US Patent 5 029 183 A to Tymes] in view of "Support".

Regarding claim 42, The Applicant's admitted prior art discloses a mobile computer terminal including:

a communications module for communication with a base unit or host computer in a system; a hand-held image scanner; a processor; and a memory having stored therein program instructions for reading by the processor such that the mobile computer terminal performs the steps of:

reading an image by said hand-held scanner; transforming data corresponding to the image read, the transformed data to be transferred from the mobile computer terminal for eventual entry into a database; sending the transformed data to a base unit or host computer according to coordinated data formatting and ordering between the mobile terminal and the base unit or host computer. [column 2, line 55-column 3, line 57; column 6, lines 28-56; column 11, line25-column 12, line 8]

The Applicant's admitted prior art does not expressly disclose determining a particular time at which the mobile computer terminal is to send a message to the base unit or host computer to avoid being disconnected; programming a timer or clock to wake up the mobile computer terminal so that the mobile computer terminal can send the message at said particular time; entering the mobile computer terminal into a sleep mode; and waking up the mobile computer terminal from the sleep mode due to the programming of the timer or clock to send the message at the particular time, however, the Applicant's admitted prior art does disclose that the prior art uses a method to minimize power consumption by having the mobile device activated for a short time to send message packets to a host computer [column 2, line 61-column 3, line

18]. The Applicant's admitted prior art also discloses that the link on which the mobile and host computer communicate may be an Ethernet network link [column 6, line 42-56]

"Support" discloses determining a particular time at which the mobile computer terminal is to send a message to the base unit or host computer to avoid being disconnected; programming a timer or clock to wake up the mobile computer terminal so that the mobile computer terminal can send the message at said particular time; entering the mobile computer terminal into a sleep mode; and waking up the mobile computer terminal from the sleep mode due to the programming of the timer or clock to send the message at the particular time [page 4, "1.2 Goals"; pages 26-28, "3.3 Registration Request, specifically "Lifetime"; pages 34-36, "3.6 Mobile Node Considerations", specifically page 35, paragraph 3 beginning "There are other conditions..."; page 41-42, "3.6.2.2 Registration Request", specifically paragraph beginning "If the mobile node has registered on a foreign..."].

It would have been obvious to one skilled in the art at the time the invention was made to use the mobile computer terminal and method of Applicant's admitted prior art to minimize power consumption with the method of "Support" because "Support" discloses that the method is intended to also minimize power consumption in battery powered mobile devices on a network [page 4, "1.2 Goals"; page 18, line 25-page 19, line 3]. Since Applicant expressly admits that limiting power consumption in mobile devices by controlling the time during which the mobile device sends messages on a network and operates at full power, the method of "Support" would have been an obvious improvement of the method of the Applicant's prior art and therefore it would have been obvious to use the improved method of "Support" with the mobile terminal of the Applicant's prior art.

Claims 43-46 are rejected under 35 USC 103(a) since claims 43-46 contain the same

limitations as recited in claims 28, 29, 35, and 36 respectively and also fall under the same

motivations to combine the references of the Applicant's prior art and "Support".

Claims 47-51 are rejected under 35 USC 103(a) since claims 47-51 contain the same

limitations as recited in claims 42, 28, 29, 35, and 36 respectively and also fall under the same

motivations to combine the references of the Applicant's prior art and "Support".

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

US Patent 5 790 946 A to Rotzoll;

US Patent 6 212 175 B1 to Harsch;

US Patent 5 940 771 A to Gollnick et al;

US Patent 5 812 819 A to Rodwin;

US Patent 5 640 001 A to Danielson et al;

US Patent 5 694 580 to Narita et al;

US Patent 6 002 918 A to Heiman et al.

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to George C Neurauter whose telephone number is 703-305-4565.

The examiner can normally be reached on Mon-Fri 9am-5:30pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-746-7239 for regular

communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-746-7240.

gcn
February 27, 2003

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100